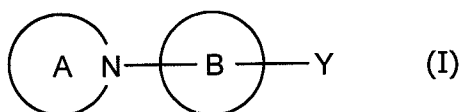


**AMENDMENTS TO THE CLAIMS**

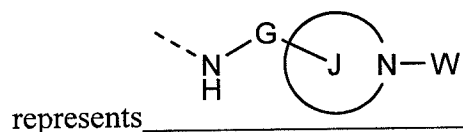
**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

**1. (currently amended):** A compound represented by formula (I):



wherein ring A represents ~~a nitrogen-containing heterocyclic group~~ an azepane ring which may have a substituent(s); ring B represents ~~a homocyclic group which may have a substituent(s) or a heterocyclic group~~ a pyrimidine ring which may have a substituent(s); and Y

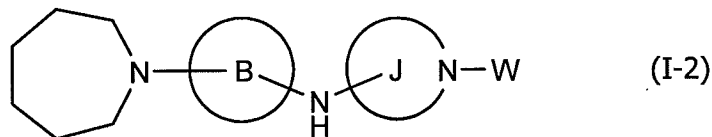


wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s) or a heterocyclic group which may have a substituent(s) ~~a hydrocarbon group which may have a substituent(s), a heterocyclic group which may have a substituent(s), an amino group which may be protected, a hydroxyl group which may be protected or a mercapto group which may be protected,~~

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

**2.-5 (canceled).**

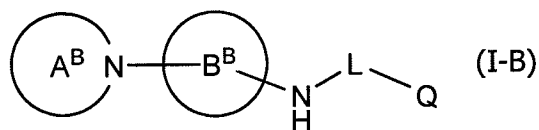
6. **(currently amended):** The compound according to claim 1, which is represented by formula (I-2):



wherein all symbols have the same meanings as those described in claim 1 or 4.

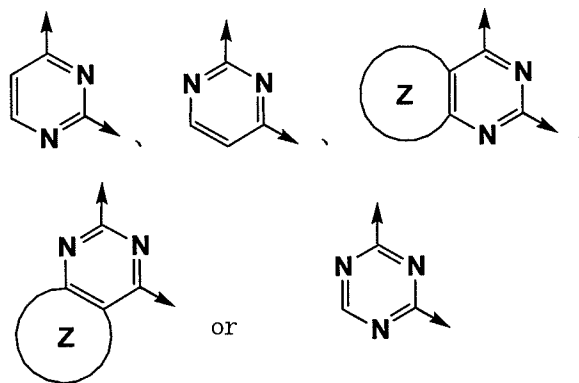
7. **(canceled).**

8. **(currently amended):** A compound represented by formula (I-B):



wherein ring  $A^B$  represents a ~~7- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which is saturated or contains one double bond and which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom~~ an azepane ring;

ring  $B^B$  represents:



wherein ring Z represents a C5-10 monocyclic or bicyclic carbocyclic group, or a 5- to 10-membered monocyclic or bicyclic heterocyclic group which may contain 1 or 2 nitrogen atoms, one oxygen atom and/or one sulfur atom; the upward arrow represents a binding position to ring A<sup>B</sup>; and the right-downward arrow represents a binding position to the nitrogen atom bound to L;

L represents (1) a bond, (2) C1-8 alkylene, C2-8 alkenylene or C2-8 alkynylene, wherein the alkylene, alkenylene and alkynylene each may be substituted with 1 to 5 of R<sup>10</sup>, or (3) a C3-8 carbocyclic group which may be substituted with R<sup>3</sup>;

Q represents (1) NR<sup>1</sup>R<sup>2</sup> wherein R<sup>1</sup> and R<sup>2</sup> each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with 1 to 5 of R<sup>10</sup>, (iii) a C3-8 carbocyclic group which may be substituted with 1 to 5 of R<sup>3</sup>, or (iv) a 5- to 15-membered heterocyclic group which contains 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R<sup>3</sup>, or (2) ring C;

ring C represents a 4- to 15-membered heterocyclic group which contains at least one nitrogen atom and may further contain 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R<sup>3</sup>;

plural R<sup>3</sup>'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R<sup>10</sup>, (2) oxo, or (3) R<sup>10</sup>;

plural R<sup>10</sup>'s each independently represents (1) OR<sup>11</sup>, (2) OCOR<sup>12</sup>, (3) OCOOR<sup>13</sup>, (4) NR<sup>14</sup>R<sup>15</sup>, (5) NR<sup>16</sup>COR<sup>12</sup>, (6) NR<sup>16</sup>CONR<sup>14</sup>R<sup>15</sup>, (7) NR<sup>16</sup>COOR<sup>13</sup>, (8) COOR<sup>13</sup>, (9) COR<sup>12</sup>, (10) CONR<sup>14</sup>R<sup>15</sup>, (11) SO<sub>2</sub>R<sup>12</sup>, (12) SOR<sup>22</sup>, (13) SO<sub>2</sub>NR<sup>24</sup>R<sup>25</sup>, (14) NR<sup>16</sup>SO<sub>2</sub>R<sup>12</sup>, (15) B(OH)<sub>2</sub>, (16) SR<sup>11</sup>, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

R<sup>11</sup> represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen, NR<sup>14</sup>R<sup>15</sup>, OR<sup>21</sup>, SR<sup>21</sup>, COOR<sup>13</sup>, or ring D, or (iii) ring D;

R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup> and R<sup>16</sup> each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;

ring D represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom; and

ring D may be substituted with 1 to 5 of the groups selected from the following (1) to (22):

(1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl or alkynyl may be substituted with 1 to 5 of OR<sup>21</sup>, OCOR<sup>22</sup>, OCOOR<sup>23</sup>, NR<sup>24</sup>R<sup>25</sup>, NR<sup>26</sup>COR<sup>22</sup>, NR<sup>26</sup>CONR<sup>24</sup>R<sup>25</sup>, NR<sup>26</sup>COOR<sup>23</sup>, COOR<sup>23</sup>, COR<sup>22</sup>, CONR<sup>24</sup>R<sup>25</sup>, SO<sub>2</sub>R<sup>22</sup>, SOR<sup>22</sup>, SO<sub>2</sub>NR<sup>24</sup>R<sup>25</sup>, NR<sup>26</sup>SO<sub>2</sub>R<sup>22</sup>, B(OH)<sub>2</sub>, SR<sup>21</sup>, halogen, nitro or cyano, (2) oxo, (3) OR<sup>21</sup>, (4) OCOR<sup>22</sup>, (5) OCOOR<sup>23</sup>, (6) NR<sup>24</sup>R<sup>25</sup>, (7) NR<sup>26</sup>COR<sup>22</sup>, (8) NR<sup>26</sup>CONR<sup>24</sup>R<sup>25</sup>, (9) NR<sup>26</sup>COOR<sup>23</sup>, (10) COOR<sup>23</sup>, (11) COR<sup>22</sup>, (12) CONR<sup>24</sup>R<sup>25</sup>, (13) SO<sub>2</sub>R<sup>22</sup>, (14) SOR<sup>22</sup>, (15) SO<sub>2</sub>NR<sup>24</sup>R<sup>25</sup>, (16) NR<sup>26</sup>SO<sub>2</sub>R<sup>22</sup>, (17) B(OH)<sub>2</sub>, (18) SR<sup>21</sup>, (19) halogen, (20) nitro, (21) cyano or (22) ring E;

R<sup>21</sup> represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with COR<sup>22</sup>, NR<sup>24</sup>R<sup>25</sup> or ring E, or (iii) ring E;

R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring E, or (iii) ring E;

ring E represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom, and

ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxy, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring A<sup>A</sup> may be substituted with 1-5 of R<sup>a</sup>;

ring B<sup>A</sup> may be substituted with 1-5 of R<sup>b</sup>;

R<sup>a</sup> and R<sup>b</sup> each independently represents a group which has the same meaning as the group represented by R<sup>3</sup>

~~ring A<sup>B</sup> may be substituted with 1 to 5 of R<sup>a</sup>; ring B<sup>B</sup> may be substituted with 1 to 5 of R<sup>b</sup>; and R<sup>a</sup>, R<sup>b</sup> and other symbols have the same meanings as those described in claim 7, and~~

wherein the following compounds (1) to (7) are excluded:

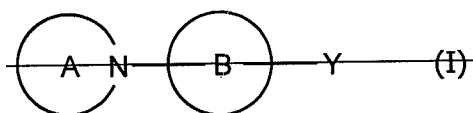
- (1) N-[4-(hexahydro-1H-azepin-1-yl)thieno[3,2-d]pyrimidin-2-yl]-1,4-butanediamine dihydrochloride,
- (2) 7-[4-[4,6-bis(hexahydro-1H-azepin-1-yl)-1,3,5-triazin-2-yl]amino-2H-1,2,3-triazol-2-yl]-3-phenyl-2H-1-benzopyran-2-one,
- (3) 4-ethoxy-6-(hexahydro-1H-azepin-1-yl)-N-[3-(4-morpholinyl)propyl]-1,3,5-triazin-2-amine,
- (4) 4-(hexahydro-1H-azepin-1-yl)-6-methyl-N-[3-(4-morpholinyl)propyl]-1,3,5-triazin-2-amine,
- (5) 4-chloro-6-(hexahydro-1H)-azepin-1-yl)-N-[2-(4-morpholinyl)ethyl]-1,3,5-triazin-2-amine,

- (6) 4-(hexahydro-1H-azepin-1-yl)-6-methoxy-N-[3-(4-morpholinyl)propyl-1,3,5-triazin-2-amine, and
- (7) N-[4-(hexahydro-1H-azepin-1-yl)thieno[3,2-d]pyrimidin-2-yl-1,4-butanediamine, or a salt thereof, ~~an N-oxide thereof, a solvate thereof, or a prodrug thereof.~~

9. **(Currently amended)** The compound according to any one of claims 1, ~~7~~ and 8, which is

- (1) N-(4-azepan-1-ylpyrimidin-2-yl)ethane-1,2-diamine,
- (2) N<sup>1</sup>-(4-azepan-1-ylpyrimidin-2-yl)-N<sup>2</sup>,N<sup>2</sup>-dimethylethane-1,2-diamine,
- (3) 4-azepan-1-yl-N-((3S)-1-cyclohexylpyrrolidin-3-yl)pyrimidin-2-amine,
- (4) 4-azepan-1-yl-N-((3S)-1-benzylpyrrolidin-3-yl)pyrimidin-2-amine,
- (5) 4-azepan-1-yl-N-((3S)-1-(2-ethylbutyl)piperidin-3-yl)pyrimidin-2-amine,
- (6) 4-azepan-1-yl-N-[(3S)-1-cyclohexylpiperidin-3-yl]pyrimidin-2-amine,
- (7) 4-azepan-1-yl-N-[(3S)-1-tetrahydro-2H-pyran-4-ylpiperidin-3-yl]pyrimidin-2-amine,
- (8) 4-(3S)-3-[(4-azepan-1-ylpyrimidin-2-yl)amino]piperidin-1-ylcyclohexanol, or
- (9) (3S)-N-(4-azepan-1-ylpyrimidin-2-yl)-1'-(cyclohexylcarbonyl)-1,4'-bipiperidin-3-amine.

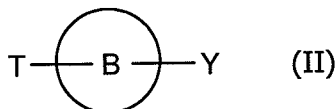
10. **(currently amended):** A pharmaceutical composition, which comprises a the compound represented by formula (I):



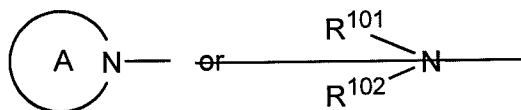
~~wherein all symbols have the same meanings as those described in~~according to claim  
1, ~~or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, and a~~  
pharmaceutically acceptable carrier.

**11.-16 (canceled).**

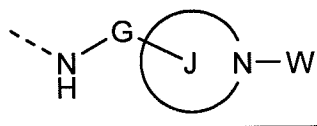
**17. (currently amended):** A CXCR4 ~~regulating agent~~antagonist, which comprises  
a compound represented by formula (II):



wherein T represents



wherein ring A represents an azepane ring which may have a substituent(s); ring B  
represents a pyrimidine ring which may have a substituent(s); and Y represents



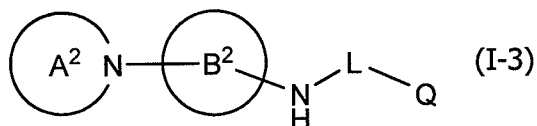
wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring  
J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a  
substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s)  
or a heterocyclic group which may have a substituent(s)

~~wherein R<sup>101</sup> and R<sup>102</sup> each independently represents hydrogen or a hydrocarbon group which may have a substituent(s); ring A has the same meaning as that described in claim 1; and other symbols have the same meanings as those described in claim 1,~~

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

18. (canceled).

19. (currently amended): A CXCR4 ~~regulating agent~~antagonist, which comprises a compound represented by formula (I-3):



wherein ring A<sup>2</sup> represents a ~~4 to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom~~ an azepane ring; ring B<sup>2</sup> represents a ~~5 to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom~~ pyrimidine ring; ring A<sup>2</sup> may be substituted with 1 to 5 of R<sup>a</sup>; ring B<sup>2</sup> may be substituted with 1 to 5 of R<sup>b</sup>; L represents (1) a bond, (2) C1-8 alkylene, C2-8 alkenylene or C2-8 alkynylene, wherein the alkylene, alkenylene and alkynylene each may be substituted with 1 to 5 of R<sup>10</sup>, or (3) a C3-8 carbocyclic group which may be substituted with R<sup>3</sup>;



Q represents (1)  $\text{NR}^1\text{R}^2$  wherein  $\text{R}^1$  and  $\text{R}^2$  each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with 1 to 5 of  $\text{R}^{10}$ , (iii) a C3-8 carbocyclic group which may be substituted with 1 to 5 of  $\text{R}^3$ , or (iv) a 5- to 15-membered heterocyclic group which contains 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of  $\text{R}^3$ , or (2) ring C;

ring C represents a 4- to 15-membered heterocyclic group which contains at least one nitrogen atom and may further contain 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of  $\text{R}^3$ ;

plural  $\text{R}^3$ 's each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of  $\text{R}^{10}$ , (2) oxo, or (3)  $\text{R}^{10}$ ;

plural  $\text{R}^{10}$ 's each independently represents (1)  $\text{OR}^{11}$ , (2)  $\text{OCOR}^{12}$ , (3)  $\text{OCOOR}^{13}$ , (4)  $\text{NR}^{14}\text{R}^{15}$ , (5)  $\text{NR}^{16}\text{COR}^{12}$ , (6)  $\text{NR}^{16}\text{CONR}^{14}\text{R}^{15}$ , (7)  $\text{NR}^{16}\text{COOR}^{13}$ , (8)  $\text{COOR}^{13}$ , (9)  $\text{COR}^{12}$ , (10)  $\text{CONR}^{14}\text{R}^{15}$ , (11)  $\text{SO}_2\text{R}^{12}$ , (12)  $\text{SOR}^{22}$ , (13)  $\text{SO}_2\text{NR}^{24}\text{R}^{25}$ , (14)  $\text{NR}^{16}\text{SO}_2\text{R}^{12}$ , (15)  $\text{B(OH)}_2$ , (16)  $\text{SR}^{11}$ , (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

$\text{R}^{11}$  represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen,  $\text{NR}^{14}\text{R}^{15}$ ,  $\text{OR}^{21}$ ,  $\text{SR}^{21}$ ,  $\text{COOR}^{13}$ , or ring D, or (iii) ring D;

$\text{R}^{12}$ ,  $\text{R}^{13}$ ,  $\text{R}^{14}$ ,  $\text{R}^{15}$  and  $\text{R}^{16}$  each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;

ring D represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom; and

ring D may be substituted with 1 to 5 of the groups selected from the following (1) to (22):

(1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl or alkynyl may be substituted with 1 to 5 of  $OR^{21}$ ,  $OCOR^{22}$ ,  $OCOOR^{23}$ ,  $NR^{24}R^{25}$ ,  $NR^{26}COR^{22}$ ,  $NR^{26}CONR^{24}R^{25}$ ,  $NR^{26}COOR^{23}$ ,  $COOR^{23}$ ,  $COR^{22}$ ,  $CONR^{24}R^{25}$ ,  $SO_2R^{22}$ ,  $SOR^{22}$ ,  $SO_2NR^{24}R^{25}$ ,  $NR^{26}SO_2R^{22}$ ,  $B(OH)_2$ ,  $SR^{21}$ , halogen, nitro or cyano, (2) oxo, (3)  $OR^{21}$ , (4)  $OCOR^{22}$ , (5)  $OCOOR^{23}$ , (6)  $NR^{24}R^{25}$ , (7)  $NR^{26}COR^{22}$ , (8)  $NR^{26}CONR^{24}R^{25}$ , (9)  $NR^{26}COOR^{23}$ , (10)  $COOR^{23}$ , (11)  $COR^{22}$ , (12)  $CONR^{24}R^{25}$ , (13)  $SO_2R^{22}$ , (14)  $SOR^{22}$ , (15)  $SO_2NR^{24}R^{25}$ , (16)  $NR^{26}SO_2R^{22}$ , (17)  $B(OH)_2$ , (18)  $SR^{21}$ , (19) halogen, (20) nitro, (21) cyano or (22) ring E;

$R^{21}$  represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with  $COR^{22}$ ,  $NR^{24}R^{25}$  or ring E, or (iii) ring E;

$R^{22}$ ,  $R^{23}$ ,  $R^{24}$ ,  $R^{25}$  and  $R^{26}$  each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring E, or (iii) ring E;

ring E represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom, and

ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxyl, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring  $A^A$  may be substituted with 1-5 of  $R^A$ ;

ring  $B^A$  may be substituted with 1-5 of  $R^B$ ;

R<sup>a</sup> and R<sup>b</sup> each independently represents a group which has the same meaning as the group represented by R<sup>3</sup> and R<sup>a</sup>, R<sup>b</sup> and other symbols have the same meanings as those described in claim 7,

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

**20.-22. (canceled).**

**23. (currently amended):** A CXCR4 ~~regulating agent~~antagonist, which comprises the compound represented by formula (I-B) according to claim 8, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

**24.-27. (canceled).**

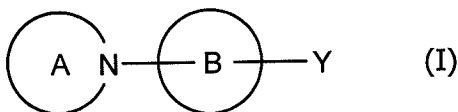
**28. (currently amended):** A medicament which comprises the compound according to any one of claims 1, ~~7,~~ 8 and 17, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, in combination with one or at least two of a reverse transferase inhibitor, a protease inhibitor, ~~a CCR2 antagonist, a CCR3 antagonist, a CCR4 antagonist, a CCR5 antagonist, a fusion inhibitor, an antibody against a surface antigen of HIV-1, and a vaccine of HIV-1.~~

**29. (Original)** The medicament according to claim 28, wherein the reverse transferase inhibitor is one or at least two selected from zidovudine, didanosine, zalcitabine, stavudine, lamivudine, abacavir, adefovir, dipivoxil, emtricitabine, tenofovir, nevirapine, nevirapine, efavirenz and capravirine.

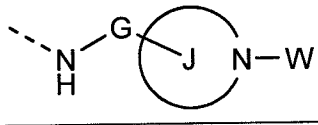
**30. (Original)** The medicament according to claim 28, wherein the protease inhibitor is one or at least two selected from indinavir, ritonavir, nelfinavir, saquinavir, amprenavir, lopinavir and lopinavir.

**31.-32. (canceled).**

**33. (currently amended):** A method for ~~preventing and/or~~ treating human immunodeficiency virus infection, which comprises administering to a subject in need thereof an effective amount of a compound represented by formula (I):



wherein ring A represents an azepane ring which may have a substituent(s); ring B represents a pyrimidine ring which may have a substituent(s); and Y represents



wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a

substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s)  
or a heterocyclic group which may have a substituent(s) wherein all symbols have the same  
meanings as those described in claim 1,

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

**34. (canceled).**